REMARKS/ARGUMENTS

Claims 24-40 are pending and stand rejected in this application.

Claim Rejections Under 35 USC § 103(a)

Claims 24, 29, and 38-40 were rejected under USC § 103(a) as allegedly being unpatentable over Zonana et al. (U.S. Patent 6,355,782) in view of Dong et al. (U.S. Patent 6,361,947). Specifically, the office action asserts that it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to combine the method of Zonana with the detection method of Dong.

Specifically, with regards to Claim 29, it was stated that Zonana discloses the use of PCR products as driver.

With regards to Claims 38 and 39, it was stated that Zonana discloses a driver with a biotin tag that binds to streptavidin magnetic beads.

Claim 40 was similarly rejected over the alleged disclosure in Zonana for the separation of a subset of complementary tester nucleic acids from the subset of immobilized complementary driver nucleic acids using the biotin streptavidin interaction.

Applicants respectfully traverse all of the above rejections.

In order to render a claimed invention obvious, a prior art reference must teach or reasonably suggest the practicing of the invention, as well as suggesting that there would be a reasonable likelihood of success in carrying out the invention. The Federal Circuit has stated that "[o]bviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching suggestion or incentive supporting the combination." (See *In re Geiger*, 815 F.2d 686, 2 USPQ 2d 1276, 1278 (Fed. Cir. 1987).) Further, according to MPEP 2143.01, "The proposed modifications cannot render the prior art unsatisfactory for its intended purpose....If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification....The proposed modification cannot change the principal of operation of a reference."

Initially, Applicants submit that in contrast to the current invention, Zonana describes the use of cDNA selection to isolate a fragment of a cDNA molecule that was derived from the desired *dl* cDNA. This cDNA fragment was then cloned and used to screen a cDNA library to identify the full-length cDNA derived from the mouse *dl* RNA. Applicants note that nothing in the instant rejection addresses where one of ordinary skill would find any reasonable suggestion of the invention, namely, use of an array for the identification of the cloned *dl* cDNA molecule in a cDNA library. In fact, there is no suggestion in Zonana or Dong that the use of an array would in any way facilitate the identification of the desired full-length *dl* cDNA. Furthermore, although Zonana discusses the use of arrays for other purposes (see column 4, lines 63-67), there is no suggestion for using them for the identification of the cloned, full-length *dl* cDNA.

An ordinary practitioner practicing the methods of Zonana would be pursuing the separation of a cDNA fragment from a plurality of cDNA fragments for use in identifying the corresponding full-length cDNA in a cDNA library. Combining the hybridization steps of Dong would be undesirable to the practitioner because this combination would conflict with the purpose of Zonana, which is to identify in a cDNA library a cloned, full-length cDNA derived from the mouse *dl* RNA. The use of arrays is incompatible with this purpose because applying the cDNA fragment isolated by the methods presented to an array would not accomplish the isolation of the cloned, full-length *dl* cDNA because the nucleic acids on an array are isolated and purified, not cloned in a bacterial library. Further, such arrays typically contain short oligonucleotides, not nucleic acids of the size of a full-length *dl* cDNA molecule. As such, the proposed modification renders the Zonana reference unsatisfactory for its intended purpose. In fact, although array technology was available to Zonana there was no reference whatsoever for its suitability not with the identification of the *dl* cDNA using the *dl* cDNA fragment.

Further, while the secondary reference to Dong is cited, it is not clear how that reference aids or otherwise instructs the instant rejection. In particular, the Dong reference is cited for hybridizing the unimmobilized single stranded tester nucleic acids to an array and determining which probes on the array hybridize to the single stranded tester subset of the population thereby analyzing the single stranded subset of the population of nucleic acid fragments. However, the rejection does not state how combining Dong with Zonana would arrive at the instant invention

or even what the motivation would be to combine Dong with Zonana. The examiner cites a line from Dong that states "....the isolated sequences are then exposed to an array which may or may not have been specifically designed and manufactured to interrogate the isolated sequences." It is unclear how this statement suggests a combination with Zonana since Dong discusses the use of an array for determining the nucleotide sequences of the isolated sequences, and certainly does not suggest the use of an array for identifying a cloned, full-length cDNA molecule in a cDNA library. Further, Zonana had no need to determine the sequence of the cloned cDNA fragment, since its identity was already known to be a fragment of the desired *dl* cDNA. Accordingly, the Applicants believe that the instant invention is patentable over the cited references and respectfully request that the rejection of claims 24, 29, and 38-40 be withdrawn.

Claims 25-28, 30 and 32-37 were rejected under USC § 103(a) as allegedly being unpatentable over Zonana et al. (U.S. Patent 6,355,782) in view of Dong et al. (U.S. Patent 6,361,947) as applied to claims 24, 29, and 38-40 and further in view of Wigler et al. (U.S. Patent 5,501,964). Applicants respectfully traverse the instant rejection.

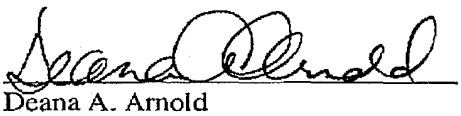
Applicants submit that Zonana and Dong fail to teach the presently claimed invention as set forth above. To attempt to overcome deficiencies in these references, the Examiner relies on Wigler et al., alleging that each of the dependent claims mentioned above were rendered obvious by the teachings of Wigler. Applicants submit that nothing in Wigler corrects the deficiencies of the combination of Zonana with Dong. Wigler is allegedly directed at comparing DNA from two sources wherein the DNA may be cDNA, genomic DNA, etc.

Zonana's method is directed at separating a fragment of *dl* cDNA from a mixture of cDNA fragments, cloning that fragment, and using that cloned fragment to screen a cDNA library to isolate a cloned, full-length *dl* cDNA. As noted above, an ordinary practitioner would not be motivated to combine Dong's detection method with Zonana for achieving the desired result of Zonana's method. Combining Wigler with the teachings of Zonana and Dong does not remedy the deficiencies of Zonana and Dong. As such, the cited references fail to render the claimed invention obvious. Hence, the Applicants respectfully request that the Examiner withdraw the instant rejection.

Conclusion

In view of the foregoing remarks, Applicants believe that the present application is in condition for allowance and action towards that end is respectfully requested. If the Examiner believes that a telephone interview would expedite the examination of this application, the Examiner is requested to contact the undersigned at the telephone number provided.

Respectfully submitted,

by: 
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